INFORMATION LETTER

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Delivered Pricing

The House on February 28 agreed to a further conference with the Senate on S. 1008, to legalize competitive freight absorption and good faith meeting of competition, and Senate and House conferees reached agreement on March 2. Under the agreement, the Senate conferees will recommend that the Senate yield on the only issue presently in disagreement.

Consideration of the conference report will be delayed, however, until after the Supreme Court rules on an antitrust suit involving delivered pricing practices. The House will act first.

The agreement is in accordance with the views of the Department of Justice. The Justice Department had expressed fear that one section of the bill would "impose an evidentiary burden that may go beyond the present requirements of the Clayton and Robinson-Patman Acts and create an almost impossible burden of proof by requiring positive evidence of facts not yet in existence." For this reason the Department recommended that the language of the section under discussion be retained as approved by the House.

Alaska Salmon Research

Because of industry interest in the research carried on by the Fisheries Research Institute under the direction of Dr. W. F. Thompson, the Alaska Salmon Research Conference March 10 will discuss Bristol Bay, Kodiak Island, and Southeastern Alaska work. The meeting will be held at the Olympic Bowl, Olympic Hotel, Seattle.

Annual Index Mailed

The 1949 annual index of the INFORMATION LETTER covering all issues from January 8 (No. 1218) to and including December 31 (No. 1267) is enclosed with this issue of the LETTER.

Canners Urged to Return Listings for 1950 Canners Directory; Publication of Directory in Advance of Packing Season Planned

Questionnaire forms to obtain copy for the 1950 edition of the *Canners Directory* were mailed this week to all canners.

While awaiting the return of these forms, the Association already has begun the compilation of other listings essential to a full and complete directory, because it is planned to issue the 1950 *Directory* much earlier this year, so as to have it ready for distribution before the start of the packing season.

It is calculated that an earlier publication of the *Directory* will greatly benefit the industry. It will mean that the *Directory* can be placed in the hands of brokers and other marketing outlets at a time that will facilitate year-'round buying of canned foods.

Canners are urged, therefore, to make whatever changes are needed to bring their *Directory* listings up-to-date, and to return these forms to the Association promptly.

Canners have been supplied the paragraphs showing firm name, address, plant locations and products, as they appeared in the 1949 edition, on a form designed to permit correction.

Reprints of Reports On FDA Tolerance Hearings

This issue of the INFORMATION LETTER contains the third report of the testimony being presented at the tolerance hearings now being conducted by the Food and Drug Administration. The first appeared in the issue of February 4, and the second in the issue of February 25. Reprints of these three reports are available upon request directed to the Raw Products Bureau. As such reports are published in the future, reprints will be made and will be similarly available.

Food and Drug Pesticide Tolerance Hearings

Following is a summary, prepared by Association Counsel and staff, of the proceedings at the FDA hearing on insecticide tolerances from February 20 through February 24, 1950.

Testimony in the Insecticide Tolerance Hearings from February 20 through February 24, 1950, was contributed by representatives of the state agricultural agencies of California, Pennsylvania and Virginia. The purpose of their testimony was to outline and develop a showing of the necessity for use of insecticides in those states.

The week began with a statement from A. B. Lemmon, Chief of the Bureau of Chemistry, California State Department of Agriculture. Mr. Lemmon described the California State Insecticide Tolerance law and the experiences which California has had as a result of passage of the law. In the beginning, tolerance limits were established for fluorine, arsenic and lead. Enforcement of these tolerances disclosed that they were much too severe and could not be maintained; consequently they were altered from time to time. Also, as informal federal tolerances were issued, the California tolerances were changed to agree with them. When DDT came into general use, tolerance limits were established for it and added to the others already mentioned. By 1949, the permissible tolerances were for fluorine—0.049 grains per pound, arsenic—0.025 grains per pound, lead—0.050 grains per pound and DDT—0.049 grains per pound. The tolerances apply to all fresh and dried fruits or vegetables offered for sale or sold within the State of California.

Mr. Lemmon said that enforcement of these tolerances has required the use of educational measures to acquaint growers with proper spray practices and the necessity of marketing fruit within permissible limits. Excessive residues are usually due to carelessness or misunderstanding as to the hazards involved. As a result of the educational program, growers have gradually learned to use acceptable pest control schedules so as to avoid excessive residues at harvest time.

Another outgrowth of tolerance enforcement experience has been recognition of the need to develop acceptable washing procedures. As a result of cooperation between growers, packers and the State Department of Agriculture, there have been developed cleaning methods for a number of fruits and vegetables. When a lot

of produce is found which is over tolerance limits, the owner is promptly notified and the quarantined lot held until it has been properly cleaned.

A further point of Mr. Lemmon's testimony was that regular inspections for the benefit of the growers and shippers as well as the tolerance enforcement agents is of value as a guide in meeting the requirements of the tolerance law. In California, during 1949, inspections of 2,363 fruit samples disclosed that only 110 of them had residues in excess of the permissible limits. The excesses were usually caused by misuse or careless handling of the insecticides.

Mr. Lemmon concluded by saying that in his opinion little would be gained by having stricter tolerances than those already in force in California. The problems of enforcement with resultant trouble and greater cost to growers would increase as tolerances were reduced. Mr. Lemmon said, "If the toxicological data warrant, I recommend to you the same tolerances we have found to be satisfactory in California. Also, I believe similar tolerances should be set up for spray residue remaining from use of other pest control materials."

The second witness from California was Dr. William M. Hoskins, Professor of Entomology at the University of California and insecticidal chemist in the Agricultural Experiment Station.

Dr. Hoskins said the diverse climatic conditions of California had resulted in a great variety of food crops and an attendant wide variety of insects and pests. Control methods such as biological control, plant and culture control and the use of traps and baits are used to the fullest possible extent but they are not sufficient to control the insect problem. Insecticides are a necessity in order to insure satisfactory crop production.

The witness went into detail concerning codling moth as it attacks pears and apples. He said that control with lead arsenate had not been as complete as desirable and had resulted in some plant injury. However, with the advent of DDT, control of the codling moth has been greatly increased although the DDT has not been effective against aphids and mites. DDD, methoxychlor, parathion, lindane, TEPP and HETP have been and are undergoing tests. Parathion shows much promise. For codling moth on apricots—½ pound of DDT, 1 pound of DDD, ¾ pound of parathion or 1½ pounds of methoxychlor are recommended in 1950 for the first spray and either methoxychlor or parathion about one month before harvest.

Among the insects discussed by Dr. Hoskins were scale, grape leaf hopper, tomato fruit worm, and various other tomato insects. He said that while DDT is toxic to scale, it cannot be used on olives because tests have shown that its use results in residues of over 100 ppm in the finished olive oil. HETP was tried as a scale control but discarded because its effect was too short-lived. Parathion has been very effective against both scale insects and the grape leaf hopper and has almost no residue when used in the early stages of growth.

According to Dr. Hoskins, mites, taken as a group, are the most serious pests of agricultural plants in California. He said that the classic controls were oil and sulfur or lime sulfur solutions until the introduction of preparations containing selenium. Parathion and the organic phosphates show much promise of being a good mite control but because of the wide varieties of mites which must be contended with, no one insecticide is sufficient.

An exhibit containing the 1950 California spray recommendations was introduced into the record, a summary of which is that for stone fruits lead arsenate, sulfur, nicotine, pyrethrum, dinitro-phenol compounds, DDT, DDD, TEPP, parathion and oil are considered necessary, while for crucifers nicotine, pyrethrum, derris, DDT, DDD, lindane, chlordane, aldrin, TEPP and parathion are necessary insecticides.

Concerning insecticide residues, Dr. Hoskins said, based upon experiments conducted by California officials, it has been found that with all fruits tested DDT residues were well below 7 ppm and usually below 5 ppm one month after application. Similar results have been found as to the residues of other chlorinated hydrocarbons. Parathion disappears rapidly and all dried or processed fruits were free from it except for an indication of a minute amount in one prune sample. BHC when used in soil contaminated all five experimental vegetables grown upon it but there is no indication that DDT when used in soil will cause contamination. There is some indication that parathion can be absorbed from soil in slight amounts by tomatoes and potatoes.

Dr. Hoskins said that washing experiments to effect DDT residue removal from apples and pears have disclosed that acid washes are practically useless but that wettable solvents such as balab are slightly more effective. The washing must be done shortly after harvest and before storage or the waxy surfaces of the fruit will become set and make residue removal impossible. Processing must follow washing within a short time or fruit spoilage will begin.

A report on experiments to remove insecticide residues from apricots which were conducted cooperatively by the University of California, the Gerber plant in Oakland, California, and the National Canners Association was introduced and discussed by Dr. Hoskins. The report was drawn up by Messrs. Lamb, Lewis and Bohm of the National Canners Association Laboratory in San Francisco, Calif. According to the report, apricots sprayed with DDT, DDD, parathion and methoxychlor were washed with water and also with various detergents. It was found that DDT, DDD and methoxychlor residue was as removable with water as with the detergents and that no washing procedure was fully satisfactory. It is still an unsolved problem, but the probable cause of the removal difficulties is the fuzzy, water repellent nature of the fruit's surface. On the other hand, the parathion disappears almost completely.

Dr. Hoskins concluded his testimony with the advice that residue tolerance limits should be sufficiently high to insure continuing insect control even in those years which present special problems.

The last witness from California was Dr. Alvin J. Cox, Sr., representing himself and the California Fruit and Vegetable Committee. He gave a statement emphasizing the growers' viewpoint on residue tolerances and recommended cautious conservative action by the Food and Drug Administration in its issuance of standards. In his statement, he mentioned some of the minor fruits which had not been previously introduced into the hearing record.

The first witness from Pennsylvania was Dean Asquith, Assistant Professor of Economic Entomology at Pennsylvania State College. He began by giving a general over-all picture of the economic need for insecticides and then gave specific information on individual fruits and vegetables.

The Pennsylvania apple spray suggestions were prepared with the need in mind for the lowering of food production costs. It varies with the portion of the state to which it is directed and is designed to meet the individual needs of the growers concerned. Mr. Asquith discussed codling moth control and compared the use of lead arsenate, DDT, phenothiazine and DDD. He stressed the desirability of having numerous insecticides available to the grower and suggested that mixed spray schedules might hold down residues.

Among the insects which attack peaches in Pennsylvania, are the European fruit lecanium, terrapin scale, plum curculio and the Oriental fruit moth. Mr. Asquith said sulfur, DDT, DDD, BHC, parathion, chlordane and TEPP are used in controlling these insects. He said lindane will probably be used very widely within a few years as it is effective against the plum curculio and apparently does not have the off-flavor limitation of the other isomers of BHC. Again he stressed the fact that a combination of chemicals is desirable for control of peach

insects just as in the case of apple insects.

Other fruits and vegetables and their insect problems which were reported upon by Mr. Asquith were plums, prunes, cabbage and cruciferae root crops, tomatoes, asparagus, strawberries, sweet corn, cucumbers, and melons.

A particular point of interest to all canners was Mr. Asquith's statement that in his opinion all canners were extremely anxious to insure low residues in the finished canned product because the result was a better as well as a safer product.

The second witness from Pennsylvania was Dr. James A. Cox, entomologist of the Pennsylvania Agricultural Experiment Station. He began by discussing grapes and the insects which infest Pennsylvania vineyards. He said the most important grape pests are the grape berry moth, the grape leafhopper and the rose chafer. The berry moth and leafhopper require annual applications of DDT insecticides for their control. Other chemicals which are used to combat grape insects are copper sulphate, lime, ferbam, miscible summer oil, Triton B-1956, Du Pont spreader-sticker, DDD, parathion and phenothiazine. Dr. Cox said that grapes sold as fresh fruit are not washed but processed grapes are. He had no data as to the amount of residue removal by washing but pointed out that no DDT residue had been found in the grape juice.

Concerning cherries, Dr. Cox said the most important insects which attack them are the plum curculio, the cherry fruit flies and the black cherry aphid but that the cherry casebearer, cherry leaf beetle, European red mite and the two-spotted spider mite are also a problem. Chemicals used in controlling these pests are largely the same as those already listed for grape insect control with the addition of DN-liquid and powder, lead arsenate, Magnetic 70 sulfur paste, chlordane and Crag 341-B. The witness said that parathion when used as a control of the cherry fruit fly does not appear to present any residue problem. The chemical was tested in 1947; it gave excellent control and had a residue of 0.17 ppm and in 1948 it resulted in a residue of 0.05 ppm. He said that DDT also gave effective control of the cherry fruit fly but that he had no residue data available.

The first witness from the State of Virginia was Dr. Douglas Greenwood, entomologist of the Virginia Truck Experiment Station. His statement dealt with vegetable crops in Virginia and the insects which attack them. The spinach crop in Virginia is attacked by the Hawaiian beet webworm and spinach aphid. For the former, effective control has been obtained with pyrethrum dust, DDT, lindane, parathion, methoxychlor, aldrin, dieldrin and rotenone. Ryania and CPR dust were tested but without satisfactory results. For control of the spinach aphid, nicotine has given good commercial control but only under certain conditions. In absence of these conditions, Dr. Greenwood said that parathion and TEPP have proved to be equally or more effective than the nicotine and usable under conditions which would prevent the use of nicotine.

Other vegetables and the insects which infest them which were discussed by the witness were cabbage, kale and collards, sweet corn, strawberries, cucumbers and cantaloupes, squash, and peas. For control of the corn earworm on sweet corn, Dr. Greenwood said DDT is a good control and that parathion shows promise. He pointed out that its degree of infestation varied with geographic region and consequently insecticide applications varied in strength. This difference in need should be taken into account when tolerance standards are established. Among the other insects mentioned were cabbage worms and aphids, armyworms, the sap beetle, pickleworm, melon worm, squash insects, pea aphid and the two-spotted mite. In general, Dr. Greenwood recommended the same chemicals for control of these insects that previous witnesses have recommended. He also said that a new chemical composition of dinitro-phenol is showing considerable promise of being an extremely good control of the mite and that purified DDT doesn't seem to have the phytotoxic qualities that are sometimes found in ordinary DDT. Concerning pea aphid control, he said the present recommendation is the application of 1 percent DDT, impregnated with non-volatile solvent at 30-35 pounds per acre. The usual practice is to sweep with a net and when the aphids begin to build up rapidly, to make one treatment. Occasionally a second treatment is required, but some of the large canning companies have developed methods and mixtures whereby control of 99.9 percent can be obtained.

In conclusion, Dr. Greenwood said that without the use of insecticides much of the Virginia fruit and vegetable crop could not be grown. He emphasized that no one insecticide was the answer and that no insecticide should be discarded merely because in its present state of development it wasn't a superior control. Pest problems are varied and constantly changing and so there must be a variety of insecticides available to take care of all contingencies.

The next Virginia witness was Dr. A. B. Groves, plant pathologist of the Virginia Agricultural Experiment Station for Tree Fruit at Winchester. He discussed the following plant diseases as they attack apples: Scab, apple cedar rust, quince rust, frog-eye leaf spot and black rot, bitter rot, blotch, Brooks spot, sooty blotch and fly speck. In his opinion, a wide variety of fungicides are necessary to combat these diseases and to make successful crop production possible. The witness did not present any residue data.

The last witness from Virginia was Clarence H. Hill, assistant entomologist at the Virginia Agricultural Experiment Station at Winchester. Mr. Hill's testimony was concerned with peach and apple insects and the chemicals which can be used to control them. Plum curculio, Oriental fruit moth and peach tree borer are the worst peach pests in Virginia. DDT, BHC, methoxychlor, aldrin, chlordane and parathion are all used for control of the above insects, and all give better plum curculio control than does lead arsenate.

Mr. Hill said some DDT residue on peaches can be removed by brushing but not all of it. He described an experiment in which the DDT residue on unbrushed peaches ranged from 0.062 to 0.064 grains per pound while on brushed peaches the residue ranged from 0.054 grains per pound to 0.058 grains per pound.

In the portion of his testimony dealing with apples, Mr. Hill said that insects which are a problem to Virginia apple growers are the codling moth, red banded leafroller, plum and apple curculio and mites. DDT has been an outstanding control of the codling moth and parathion shows promise in control of most leaf eating insects which attack apples. Other chemicals used to control apple insects are toxaphene, DDD, TEPP, DN-111 and lead arsenate.

The witness introduced an extensive exhibit dealing with insecticide control residue and residue removal. One experiment showed the following DDT residues on York Imperial apples which were last sprayed on July 25, 1946, and picked on September 24, 1946:

Sprayed with—	Residue (*Grains per pound*)
50% DDT 1.5 lb. and oil 3 qts.	0.0784
50% DDT 2 lb.	0.0406
30% DDT liquid	0.0872
25% Emulsion	0.1412
25% Liquid	0.1293

An experiment on DDT residue removal from York Imperial, Winesap and Stayman-Winesap apples conducted jointly by the Virginia Experimental Station and the Geigy Company showed that DDT residues may be reduced but not eliminated by various washes. The washes, particularly the hot acid ones, seriously injure the storage qualities of the fruit.

This concluded the hearings for the week and they adjourned until February 27, 1950, at which time they will resume with testimony by witnesses from the States of Connecticut and New York.

STATISTICS

Canners Fruit and Vegetable Stocks and Shipments

Reports on canners stocks and shipments of canned sweet cherries, apples, applesauce, apricots, peaches, pears, green and wax beans, lima beans, and tomatoes have been compiled by the Association's Division of Statistics, and detailed reports on these canned foods have been mailed to canners packing these items.

Sweet Cherry Supply, Stocks and Shipments

	1948–49	1949–50
	(cases—basis 24/2½'s)	
Carryover, June 1	23,000	65,000
Pack	839,000	1,678,000
Total supply	862,000	1,743,000
Stocks, Feb. 1	186,000	693,000
Shipments during Jan.	30,000	49,000
Shipments, June 1 to Feb. 1	676,000	1,050,000

Canned Apple Supply, Stocks and Shipments

	1949–50
	(basis 6/10's)
Carryover, June 1	58,821
Pack	4,213,162
Total supply	4,271,983
Stocks, February 1	1,758,351
Shipments, June 1 to February 1	2,513,632

Canned Applesauce Stocks and Shipments

	1948–49	1949–50
	(actual cases)	
Carryover, June 1	2,579,727	299,113
Pack	4,839,920	8,690,702
Total supply	7,419,647	8,989,815
Stocks, Feb. 1	2,449,931	3,698,603
Shipments, June 1 to Feb. 1	4,969,716	5,291,212

Canned Apricot Stocks and Shipments

	1948–49	1949–50
	(cases—basis 24/2½'s)	
Carryover, June 1	708,000	1,522,000
Pack	4,767,000	2,375,000
Total supply	5,473,000	3,897,000
Stocks, Feb. 1	2,736,000	1,451,000
Shipments during Jan.	179,000	204,000
Shipments, June 1 to Feb. 1	2,737,000	2,446,000

Canned Peach Supply, Stocks and Shipments

	1948–49	1949–50
	(cases—basis 24/2½'s)	
Carryover, June 1	1,877,000	3,518,000
Pack	17,381,000	19,134,000
Total supply	19,258,000	22,652,000
Stocks, Feb. 1	8,375,000	10,460,000
Shipments during Jan.	1,109,000	1,136,000
Shipments, June 1 to Feb. 1	10,883,000	12,192,000

Canned Pear Supply, Stocks and Shipments

	1948–49	1949–50
	(cases—basis 24/2½'s)	
Carryover, June 1	793,000	788,000
Pack	3,993,000	*5,904,000
Total supply	4,786,000	*6,692,000
Stocks, Feb. 1	2,135,000	2,703,000
Shipments during Jan.	323,000	187,000
Shipments, June 1 to Feb. 1	2,651,000	*3,989,000

* Due to revisions in the Northwest pack report, the totals of pack, total supply, and shipments of canned pears have been revised.

Green and Wax Bean Stocks and Shipments

	1948–49	1949–50
	(actual cases)	
Carryover, July 1	218,582	329,031
Pack	14,133,205	19,302,855
Total supply	14,351,787	19,631,886
Stocks, Feb. 1	3,507,902	6,599,837
Shipments during Jan.	1,388,990	2,005,308
Shipments, July 1 to Feb. 1	10,843,885	13,032,049

Lima Bean Stocks and Shipments

	1948–49	1949–50
	(actual cases)	
Carryover, Aug. 1	.....	103,230
Pack	2,598,980	4,713,207
Total supply	2,598,980	4,816,437
Stocks, Feb. 1	635,313	2,625,455
Shipments, Aug. 1 to Feb. 1	1,963,667	2,190,982

Canned Tomato Stocks and Shipments

	1948–49	1949–50
	(actual cases)	
Carryover, July 1	1,949,713	2,718,555
Pack	21,466,688	18,873,672
Total supply	23,416,401	21,592,227
Stocks, Feb. 1	9,743,100	8,132,253
Shipments during Jan.	2,290,714	1,346,909
Shipments, July 1 to Feb. 1	13,673,301	13,459,974

Special Report on Canned Corn

A special report on canned sweet corn, prepared by the Association's Division of Statistics, was mailed this week to all corn canners as a special service.

The report covers production and pack trends, stocks and shipments, changes in can sizes, comparative returns per acre, and consumption. The text and charts was prepared by Dr. H. L. Stier, head of the Department of Markets of the University of Maryland, College Park, Md. Some of the charts were presented by Dr. Stier during his address at the Special Corn Canners Meeting at the 1950 Canners Convention.

1949 Packs of Apple Products

The 1949 packs of apples, applesauce, and apple juice have been compiled by the Association's Division of Statistics, and detailed reports on these packs have been mailed to all canners packing these items.

The 1949 packs of canned apples, applesauce, and apple juice by states, with comparisons with 1948, are shown below:

1949 Pack of Apples by States

	1948	1949
	(cases—basis 6/10's)	
New York	481,586	1,164,797
Md., Pa., and Va.	986,728	2,382,839
Michigan	(a)	(a)
Wash.-Ore.	199,848	371,611
Other states	19,280	293,915
U. S. total	1,687,442	4,213,162

(a) Included in Other states.

1949 Pack of Applesauce by States

	1948	1949
	(actual cases)	
New York	1,533,909	2,645,056
Md., Pa., and Va.	2,921,861	4,763,527
Other states	384,150	1,282,119
U. S. total	4,839,920	8,690,702

1949 Pack of Apple Juice by States

	1948	1949
	(actual cases)	
New York	405,487	(a)
Md., Pa., and Va.	252,231	948,699
Michigan	110,748	427,211
Other states	412,664	1,215,897
U. S. total	1,181,130	2,591,807

(a) Included in Other states.

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